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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/740,634	12/18/2000	Wilhelm Schmid	GR 98 P 1916 P	4357

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POST OFFICE BOX 2480
HOLLYWOOD, FL 33022-2480

EXAMINER

PATEL, PARESH H

ART UNIT	PAPER NUMBER
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2829

DATE MAILED: 12/18/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/740,634

Applicant(s)

SCHMID ET AL.

Examiner

Paresh Patel

Art Unit

2829

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.138(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 September 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 7 and 9-13 is/are pending in the application.
4a) Of the above claim(s) 5, 6, 8 and 14-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 7 and 9-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 December 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 11.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 09/30/2002 have been fully considered but they are not persuasive.

Applicant argues that "Quinn does not show at least one contact point externally accessible for selectively testing any one of the internal chip signals, as recited in claim 1. Each externally accessible contact point in Quinn only contact one particular internal contact point. Therefore, the invention as recited in claim 1 of the instant application is not anticipated by Quinn." Examiner disagrees because two multiplexers 7 and 8 as disclosed on pages 10-11 selectively passes their input signals 9, 10, 11, 12, 13 and 14 to their output signals 21 and 22 at an external connecting points 2 and 3 respectively. Which means each externally accessible contact point [2 or 3] is in contact with one particular internal contact point [15 or 16 or 17 or 18 or 19 or 20] of an integrated circuit. Abstract of Quinn discloses the same.

Drawings

The drawings are objected to under 37 CFR 1.83(a) because they fail to show a reference signal as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

The disclosure is objected to because of the following informalities: use of a reference signal as disclosed on page 4, and on page 10 is not properly describe a device to achieve a selective testing any one of a signals provided from a plurality of circuit point.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

- Claims 1-4, 7 and 9-13 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. Signal selecting device using a reference signal (see amended claim 1 and remarks of paper no. 12) is critical or essential to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976). An integrated circuit as enabled by specification must have a signal selecting device using a reference signal for selectively testing a signals from a plurality of circuit points.

Claims 2-4, 7 and 9-12 are rejected because they depend from rejected claim 1.

- Claims 1-4, 7 and 9-12 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly

connected, to make and/or use the invention. Claim 1 recites selectively testing any one of the various electrical signals provided by a plurality of circuit points. The specification does not describe at all nor does it enable how this is to be achieved using a reference signal.

Claims 2-4, 7 and 9-12 are rejected because they depend from rejected claim 1.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2-3, 7, 9 and 10-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2 recites the limitation "said at least one external test connecting contact point" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 3 is rejected because it depends from rejected claim 2.

Claim 7 recites the limitation "said at least one external test connecting contact point" in lines 3-4. There is insufficient antecedent basis for this limitation in the claim.

Claim 9 is rejected because it depends from rejected claim 7.

Claims 10-13 recites the limitation "said at least one external test connecting contact point" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4 and 10-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Quinn (US 3801910).

Regarding claim 1, Quinn discloses: an integrated circuit component [10], comprising:

a plurality of circuit points [30 or 34 or 14 and lines 17-34 of column 5 and lines 15-19 of column 8] that are not externally accessible and that provides various electrical signals; and

at least one connecting contact point externally accessible [16 or 19 or 39 which is connected to tester] for selectively testing any one of various signals and a via routes [38 or 17] within the integrated circuit component from said plurality of circuit points that are not externally accessible.

Regarding claim 2, Quinn discloses: said at least one external test connecting contact point is a plurality of external test connecting contact points [14 and lines 58-61 of column 4]; a reference signal is selectively applied and passed on via a route within the integrated circuit component to one of said plurality of external test connecting contact points from one of said plurality of circuit points that are not externally accessible [30, 14, 40 and lines 57-68 of column 4]; and said signals to be measured or

analyzed can be selectively applied to be passed on via routes within the integrated circuit component from said plurality of circuit points that are not externally accessible to said plurality of external test connecting contact points other than said one of said plurality of external test connecting contact points [14 and lines 58-61 of column 4, lines 10-16 of column 5, and lines 8-13 of column 8].

Regarding claim 3, Quinn discloses: said plurality of external test connecting contact points is exactly two external test connecting contact points [14 and lines 57-61 of column 4].

Regarding claim 4, Quinn discloses: said electrical signals are internal chip signals [lines 1-10 of column 3] in the integrated circuit component; and reference signals and said electrical signals can be selectively passed on to said at least one external test connecting contact point [lines 57-61 of column 4].

Regarding claim 10, Quinn discloses: said at least one external test connecting contact point can be selectively used in an opposite operating direction for inputting signals to said plurality of circuit points that are not externally accessible [lines 57-61 of column 4].

Regarding claim 11, Quinn discloses: said at least one external test connecting contact point is connected to a component tester for analyzing the electrical signals at, at least some of said plurality of circuit points [lines 57-61 of column 4 and TESTER of fig. 1].

Regarding claim 12, Quinn discloses: at least one external test connecting contact point is connected to a system and an application of said system analyzes the

electrical signals at, at least some of said plurality of circuit points [lines 57-61 of column 4, lines 21-24 of column 5 and TESTER of fig. 1].

Regarding claim 13, Quinn discloses: said at least one external test connecting contact point is used for analyzing a system [fig. 1 or fig. 3] in which said integrated circuit [10] is used.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Quinn as applied to claim 1 above and further in view of Du Chene et al. (US 4982403).

Regarding claim 7, Quinn discloses all the essential elements of the claimed invention except for a time-controlled multiplexing circuit is provided for selectively passing on the electrical signals to said at least one external test connecting contact point. Rather, Quinn discloses a laser source [23] for selectively passing on the electrical signals to said at least one external test connecting contact point [lines 49-61 of column 4].

Du Chene et al. (hereafter Chene) discloses a time-controlled multiplexing circuit [8 and 7 of fig. 5] for selectively passing on the electrical signals to said at least one external test connecting contact point. It would have been obvious to a person having

ordinary skill in the art at the time the invention was made to modify the integrated circuit component of Quinn and substitute a time-controlled multiplexing circuit of Chene for a laser source because Chene discloses time-controlled multiplexing circuit is capable of selectively passing electrical signals to the external test contact points. Regarding claim 9, Chene discloses: said multiplexing circuit is programmably controlled [8 of fig. 5 and lines 65-68 of column 4 and lines 1-7 of column 5] to predetermine selective passing on of the electrical signals to said at least one external test connecting contact point.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paresh Patel whose telephone number is 703-306-5859. The examiner can normally be reached on M-F (8:30 to 4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kammie Cuneo can be reached on 703-308-1233. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

Paresh Patel
December 10, 2002



KAMMIE CUNEO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800